

REMARKS

Reconsideration and further examination are respectfully requested.

Objections to the claims

Claims 7 and 8 were objected to for depending from claim 5, rather than claim 6.

Applicant has amended the claims to correct their dependence relationship and it is requested that the objection be withdrawn. The Examiner is thanked for the careful review of the claims.

Rejections under 35 U.S.C. §102(c)

Claims 1-3, 6-7, 9-10 and 13-15 were rejected under 35 U.S.C. §102(c) as anticipated by Hoke, U.S. Patent 6,701,437.

Hoke:

Hoke describes, at col. 3, lines 29-20:

“... a virtual private network (VPN) unit for selectively processing secure communications for members of a virtual private network. One embodiment of the present invention is used in a VPN operating over a public data network connected to an organization's private network (e.g., a LAN or WAN). The organization's private network includes one or more endstations that are members of the VPN. In this first embodiment, a VPN unit serving the VPN member endstations contains a processor, storage memories, and a communication port. A method of configuring the VPN unit is also provided, whereby VPN communications (e.g., communications requiring secure transmission between members of a VPN) are processed by the VPN unit but other communications bypass it...”

A VPN unit of Hoke, as described at column 4 lines 45-48, receives configuration parameters that are used to configure the VPN unit to appropriately handle communications between members of VPNs. As described at column 8, lines 37-43:

“...VPN units maintain lookup tables for identifying members of specific virtual private networks and groups within a particular virtual private network. When VPN traffic is sent

between source and destination endstations that are both members of the same VPN, the VPN unit serving the source endstation processes the data packet, encrypts it, compresses it (if necessary), and adds authentication information as needed...”

Thus, the VPN unit maintains lookup tables that identify both endstations to figure out the appropriate transformation to apply to the packet. Such a structure is described at page 4 of Applicant’s specification. One drawback of such a structure is the difficulty of scalability, since the VPN unit must maintain security association information for each source/destination pair.

In contrast, the claimed invention discloses the use of a VPN identifier (as opposed to a source/destination pair). The VPN-ID is used to determine a transform to apply to the packet, while routing can be done using the destination address.

The Examiner states that Hoke teaches such a limitation at column 7, lines 46-53.

However, column 7, lines 46-53 of Hoke merely recites:

“...To enable this selective mode of operation, VPN traffic sent or received by endstations within headquarters LAN 110 conform to a “tunnel” format. In this tunnel format, data packets generated by an endstation in LAN 110 are received by VPN unit 115 where they are encrypted and encapsulated within VPN packets addressed to the VPN unit serving the destination endstation. Conversely, when VPN unit 115 receives a VPN packet from public network 100, it strips off the destination address (which corresponds to VPN unit 115), decrypts the remainder, and forwards the packet to LAN 110 for delivery to the appropriate station....”

The portion of text cited by the Examiner merely shows that the LAN forwards a packet to the VPN. Applicant’s can only assume that the Examiner, therefore, is broadly reading the combination of the source and destination LAN address as the ‘group identifier’ limitation of the claim. However, Applicant’s would like to respectfully point out that the claim recites the use of a group identifier *as well as* a destination address; thus it is clear that the group identifier of the

claims is differentiated from a destination address, and is therefore not analogous to the combination of the source and destination address combination of Hoke.

Accordingly, for at least the reason that Hoke fails to describe or suggest 'a group identifier corresponding to the group of stations and a destination address for the packet...' as recited in claim 1, it is requested that the rejection be withdrawn. Dependent claims 2-5 serve to further limit claim 1 and are therefore allowable with claim 1.

Claim 6, as amended, now recites the steps of "...receiving a packet at the egress of the backbone, *the packet including an identifier of the group of stations and a destination for the packet* ... restoring the packet responsive to the group security association data associated with the identifier of the group of stations; and forwarding the packet to the destination..."

Accordingly, claim 6 includes limitations similar to those of claim 1, in particular the use of a packet that includes an identifier of a group of stations in addition to a destination address. For at least the reason that Hoke fails to teach or suggest every limitation of claim 6 it is therefore requested that the rejection be withdrawn. Dependent claims 7-8 serve to further limit claim 6 and are therefore allowable with claim 6.

Claim 9, as amended, now recites the steps of "...forwarding, by the source station, a packet to the destination station, the packet including the destination identifier and the private group identifier, the step of forwarding including transforming the packet using the group security association..."

Accordingly, claim 9 includes limitations similar to those of claim 1, in particular the use of a packet that includes an identifier of a group of stations in addition to a destination address.

For at least the reason that Hoke fails to teach or suggest every limitation of claim 9 it is therefore requested that the rejection be withdrawn.

Claim 10, as amended, now recites "... means for forwarding the communication between members of the group over the network using a group address associated with the group, the group address including a group identifier and a group destination address..." As described above with regard to claim 1, no such structure is shown or suggested by Hoke, and it is therefore requested that the rejection be withdrawn. Dependent claims 11-16 serve to further limit claim 10 are therefore allowable with claim 10.

Rejections under 35 U.S.C. §103

Claims 4-5, 8, 12 and 15 were rejected under 35 U.S.C. §103 as unpatentable over Hoke in view of Mukherjee, U.S. Patent Application No. 2004/0006708.

Mukherjee:

Mukherjee describes, in the Abstract:

"A method for providing peer-to-peer virtual private network (P2P-VPN) services over a network. The method includes identifying subnet and host addresses for each user device requesting participation in a virtual private network (VPN) session. Once the subnet and host addresses are identified, a virtual private host (VPH) is initiated for each user device, where each VPH communicates with each user device via a respective tunnel through the network, thereby enabling secure communications between the user devices..."

Thus, Mukherjee describes a peer-to-peer VPN, where end-user devices directly communicate. Such a teaching would appear to be in direct contrast the with teachings of Hoke, which directs all VPN communications between VPN units that maintain lookup tables for the individual end-users.

With regard to the combination of Hoke and Mukherjee, the Examiner states, at page 4 of the office action:

“... it would have been obvious... because it allows the advantage of having peer to peer virtual private networking for consumers who are not affiliated with an enterprise thus allowing multiparty conferences and bridges...”

Applicants respectfully submit that Hoke would *not* have been motivated as the Examiner suggests, for the reason that such a modification would cause the lookup tables of Hoke to become unmanageable. Absent the solution of the present invention, such a combination would serve to frustrate Hoke to the point of inoperability.

However, even if one would be motivated to modify Hoke as suggested by the Examiner, Applicant's respectfully submit that the combination of Hoke and Mukherjee still fails to teach or suggest the limitations of the parent claim. Thus claims 4, 5, 8, 12 and 15 are patentable for at least the reason that they serve to further limit an allowable parent claim.

Conclusion:

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Applicants' Attorney at the number listed below so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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Date

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